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VIDEO GAMING MACHINE WITH PLAYER CHOSEN CELLS TO BE PLAYED

BACKGROUND OF THE INVENTION

5 1. Field of the Invention

[0001] The invention relates to video gaming machines. In particular,
the invention relates to games of chance.

10 [0002] 2. Description of the Prior Art
The video games known to the prior art frequently include the
steps of displaying a plurality of symbols in a matrix of rows and columns, so as to
simulate the appearance and function of the reels found in traditional mechanical slot
machines, and issuing a prize in response to a predetermined winning combination of
symbols being displayed along particular predetermined "paylines." An example of
15 such a prior art game is illustrated in U.S. Patent 6,261,178 to Bennett. However, such
games typically have pay lines which include a set number of cells to be played, i.e.,
the number cells to be played in any particular payline remains fixed regardless of the
payline selected for play.

[0003] There is a constant need in the industry for improving games
20 with innovative features to add interest and promote repetitive and continued use.

SUMMARY OF THE INVENTION AND ADVANTAGES

[0004] The invention includes the apparatus and readable medium that
will execute the inventive method for playing a game that allows the player to select

the number of cells that will be played in the hope of randomly obtaining a winning combination within those cells.

[0005] Instead of the past practice of allowing the player or operator to select only from a variety of predetermined paylines each of which include the same number of cells in which symbols appear, the subject invention allows the player to select and wager on one, some, or all of the total available cells. The various different numbers of cells to be played may have associated with each such number different odds for achieving a winning combination. The invention adds the additional dimension of changing the probabilistic distribution of symbols in the cells depending upon the number of cells selected by the player.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Other advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

[0007] Figure 1 is a perspective view of a video game machine incorporating the subject invention;

[0008] Figure 2 is a block diagram of the components of the gaming machine;

[0009] Figure 3 is a presentation of a video display showing the various cells, symbols and indicators ;

[0010] Figure 4 is a view like Figure 2 but showing the cells during the animated random selection of the symbols for each individual cell;

[0011] Figure 5 is a presentation showing the secondary event at the initiation thereof;

[0012] Figure 6 is a presentation of the secondary event showing the spaceship and pawnshop ;

5 [0013] Figure 7 is a presentation of the interior of the pawnshop

[0014] Figure 8 is a block diagram of the controller used in the subject invention;

[0015] Figure 9 is an illustration of the moon symbol;

[0016] Figure 10 is an illustration of the earth symbol; and

10 [0017] Figure 11 is a flow chart representing the steps of play.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0018] With reference to the drawings and in operation, the present invention provides a video slot gaming machine **10**. With reference to Figure 1, an exemplary video gaming machine, generally shown at **10**, into which the present invention can be incorporated to improve the enjoyment of a video game and to thereby increase the amount of time that the video game is played by patrons of a gaming establishment. Figure 1 shows a general appearance of the video gaming machine **10** to which the present invention is applied. As shown in the Figure 1, the machine **10** comprises a housing standing upright. The housing comprises a main body **3**, a top box **4** mounted on a top portion of the main body **3** and a door **5** attached to a front side of the main body **3** so as to be swingable between an open position and a closed position.

[0019] At a center portion of the front side of the main body **3**, there is mounted a main display device **20** comprising a CRT, and below the display **20** is

provided an operation panel 6. The operation panel 6 is attached to the door 5 so as to slope down in a forward direction of the machine 10. Below the operation panel 6 and on a front side of the top box 4, there are provided decoration panels 7a and 7b on which pictures, letters and the like representing a title of the machine 10 or the like are illustrated.

[0020] As shown in Figure 1, the operation panel 6 is provided, from a right end toward a left end thereof, with an insertion portion 8, and an input or keyboard portion 9. The insertion portion 8 is provided with a slot base integrally formed with a coin insertion portion and a bill insertion portion, as is well known in the art. Note that the word coins includes coins or tokens.

[0021] In the exemplary input portion generally indicated at 9, four push button switches are provided as first input devices, each of which is capable of being depressed. The push button switches are selected as switches to be operated with particular high frequency during the game, so that these switches are provided on the operation panel 6. For example, the push button switch at a lower left position of the four switches is operated for starting the game. The number of the push buttons provided at the input portion 9 and functions assigned to the push buttons can be properly changed.

[0022] Figure 2 is a block diagram illustrating a schematic configuration of a control system or game controller provided in the machine 10. The game controller includes a central processing unit (CPU) 11, a coin-bill management device 12, a display processor 13, a RAM 14 as a memory device and a ROM (or EPROM) 15. The CPU 11 is mainly composed of a microprocessor unit and performs various calculations and motion control necessary for the progress of the game.

[0023] The coin-bill management device 12 detects the insertion of a



coin or token or bill from the coin insertion portion and the bill insertion portion of the insertion portion 8, and performs a necessary process for managing the coin or bill. For example, the device 11 judges whether the medal and the slip are real or counterfeit, and keeps the medal and the slip judged as real while rejecting the medal and the slip judged as counterfeit. The display processor 13 interprets commands issued from the CPU 11 and displays desirable images on the display 20. The RAM 14 temporarily stores programs and data necessary for the progress of the game, and the ROM 15 stores, in advance, programs and data for controlling basic operation of the machine 10, such as the booting operation thereof and game code and graphics.

10 [0024] The video gaming machine 10 as shown in Figures 1, 2, 3 and 4 further includes the display 20, which is advantageously a display monitor display is mounted directly in the main body portion 3 of the housing.

 [0025] The CPU 11 is electrically connected with a coordinate readout device 16 as well as the above mentioned pushbutton switches 9. The coordinate readout device 16 works as a second input device and comprises, for example, a so-called touch panel formed as a transparent panel and capable of issuing signals corresponding to the coordinates of a position touched by the player. The coordinate readout device 16 is closely put on the surface of the display 20. In the CPU 11, there is provided a random number generator 17 that generates random numbers used for randomly selecting elements during game play, as described below.

 [0026] With reference to Figures 1 and 3, the game controller 11 sends a signal to a display processor 13 for displaying a plurality of game elements or symbols 18, 19 (as shown separately in Figures 9 and 10) and 21-29 on the display 20. The display 20 includes a cash-out button 31 such that when the cash-out button 31 is depressed any accumulated winnings are paid to the player, this is preferably

implemented by a touch screen device. A paid meter keeps track of the amount of winnings paid out to the player per game. A won or win meter is displayed for informing the player the number of winning credits accumulated per game.

[0027] The display 20 in the form of a touchscreen video display is included for displaying the plurality of symbols 18, 19 and 21 through 29 and as individually shown in Figures 9 and 10 in a matrix of rows and columns of cells 30. As will be appreciated there are only nine cells illustrated but there are eleven symbols that can be utilized, therefore the additional two symbols are shown separately in Figures 9 and 10. The symbols 21, 24 and 27 are in the cells 30 of the first column, symbols 22, 25 and 28 are in the cells 30 of the second column, and symbols 23, 26 and 29 are in the cells 30 of the third column. Therefore, the symbols 21, 22 and 23 are in the top row, while the symbols 24, 25 and 26 are in the middle row, and the symbols 27, 28 and 29 are in the bottom row. The matrix thus includes nine cells 30 in three columns and three rows. It is recognized, however, that the number and geographical arrangement of the cells, as well as the number of available symbols, can be varied from this embodiment without detracting from the inventive aspects of the game; stated differently, the inventive aspects of the game are not dependent upon the geographical relationship or positioning of any cell relative to any of the others. Likewise, the total number of cells is similarly not critical to the inventive aspects of the game.

[0028] As shown in Figures 3, 9 and 10, the symbols include representations of a person (Bill) 21, a satellite 22, a gold bag 23, a pawnshop 24, an ice planet 25, a pawnshop operator 26, a junk planet 27, the moon (shown in Figure 9), earth (shown in Figure 10), a spaceship 29, and a trigger planet 28 for initiating the secondary event hereinafter described.

[0029] The random generator 17 is included for randomly generating a symbol 18, 19 and 21-29 in each of the cells 30 entirely independently of the random generation of a symbol 18, 19 and 21-29 or as in Figures 9 and 10 in each of the other cells 30. Video displays have been used in gaming machines to simulate the spinning
5 reels used in mechanical slot machines wherein one reel is used in each column. However, in the subject invention every single cell 30 is randomly presented with a symbol independently of the random selection of a symbol for any other cell 30. Accordingly, the display 20 is essentially a video display 20 arranged to simulate a reel for each cell 30 with each cell capable of presenting any of the symbols 18, 19
10 and 21-29.

[0030] However, as shown in Figure 8, the random generator 17 includes a symbol processor 40 for changing the probabilistic distribution of symbols 18, 19 and 21-29 available for random selection and presentation in each cell 30 in response to the number of cells 30 selected by the player. In other words, the
15 probability of any particular symbol appearing in a cell changes in response to the number of cells 30 selected by the player to be wagered upon for that particular play. Said yet another way, the probabilistic distribution of symbols in the cells 30 varies in relationship to the total number of cells 30 being played. This is illustrated in the following table:

[0031] SYMBOL DISTRIBUTION

<u>SYMBOL</u>	<u>NUMBER OF CELLS BEING PLAYED</u>				
	<u>1</u>	<u>3</u>	<u>5</u>	<u>7</u>	<u>9</u>
SYM1	10	10	60	70	90
SYM2	20	20	60	70	90
SYM3	40	50	80	80	90
SYM4	90	90	90	80	90
SYM5	110	100	90	90	90
SYM6	110	130	100	110	90
SYM7	150	150	120	120	90
SYM8	150	140	130	120	100
SYM9	160	150	130	120	100
SYM10	160	160	140	140	100
TR1	0	0	0	0	70
TOTAL	1000	1000	1000	1000	1000

5 **[0032]** Thus, when playing only once cell a player has a ten in one thousand (10:1000) chance (or 1/1000) to get symbol.

[0033] Figure 4 represents the cells 30 as the random generator 17 is in the process of selecting symbols 18, 19 and 21-29 to be displayed in each respective cell 30, i.e., the cells 30 are blank or an animated blur of activity. However, it is to be
10 understood that only the cells selected by the player will be spun into a blur of activity in selecting the symbols for only the selected cells.

[0034] Continuing with Figure 8, a game control 34 is part of the CPU
11 software for awarding a prize in response to a predetermined winning combination of symbols 18, 19 and 21-29 being displayed on the display 20. The game control 34
15 determines the presence of winning combinations of symbols 18, 19 and 21-29 in the cell or cells 30 selected by the player and makes various awards dependent upon the combination of symbols 18, 19 and 21-29 therein. The game control 34 includes pay-

table software 35 defining the winning combinations of symbols 18, 19 and 21-29 for each number of cells selected by the player 30.

**[0035] 9 SPOT PAYTABLE 1 COIN WAGERED PER SPOT
LUCKY SYMBOL DOUBLE PAYS**

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SYMBOL NAME	#HIT 3	#HIT 4	#HIT 5	#HIT 6	#HIT 7,8,9
SYM1	25	75	250	1000	5000
SYM2	20	50	200	800	400
SYM3	15	25	100	500	2500
SYM4	12	25	100	500	2500
SYM5	9	15	75	400	2000
SYM6	9	15	75	400	2000
SYM7	9	15	75	200	1000
SYM8	0	12	50	200	1000
SYM9	0	9	45	100	500
SYM10	0	9	45	100	500
TR1	EVENT	EVENT	EVENT	EVENT	EVENT

10 **[0036]** As shown in Figure 8, the CPU 11 of the assembly includes a selector software 36 for allowing a player to select the number of cells 30 to be evaluated by the game control 34 to detect the presence of a winning combination once the random generator 17 has randomly selected a symbol for each cell 30. The selector 36 includes a sensor 38 in the form of mechanical buttons 9, a keyboard or a touchscreen feature of the video display 20 to allow the player to select a predetermined number of cells 30. In other words, the player touches each and every

15 cell to be selected and included in the total number selected. In the preferred embodiment, the predetermined number of cells 30 include one, three, five, seven or nine cells 30 for player selection via the selector 36, and predetermined groupings or arrangements of the one or more cells 30 corresponding to each such predetermined number of cells 30. Said another way, the player may select any three cells of the

20 nine, or any combination of five, seven or nine, i.e., in any pattern or sequence. It is

within the scope of the invention to allow the player to select any number of cells 30 to play. It is further within the scope of the invention to allow the player to select via touching the screen which particular cell or cells 30 to play, i.e., cells in any position relative to one another. It is also within the scope of the invention to limit the players selection to simply identify groups of cells 30 at play (i.e., if the player picks these cells 30 then they will in a center row).

[0037] The random generator 17 software includes a lucky symbol generator 42 for selecting on each play one of the symbols 18, 19 and 21-29 as a lucky symbol for providing an increased prize in response to a winning combination including the lucky symbol. As shown in Figures 3 and 4, a lucky symbol indicator 44 indicates which of the symbols 18, 19 and 21-29 has been selected by the lucky symbol generator 42 for the current play.

[0038] A number indicator 46 is also shown in Figures 3 and 4 for indicating the number of cells 30 selected for play by the player. By pressing the indicator 46, the number of cells increments from 1 to 3 to 5 to 7 to 9 or in nice simple patterns. Also, a bet indicator 48 is used to establish and increase the amount of the player's wager. A help button 50 is included for seeking directions in playing the game, as well as a button 52 to allow player to view the games' pay-table.

[0039] Along the left margin of the display 20 in Figures 3 and 4, indicators are labeled for respectively indicating the total credits (i.e., prizes) won and awarded, the total bet, the amount won, and the amount paid. The credit indicator is presented for indicating the total number of credits the player possesses, i.e., accumulated. There is also an indicator showing the amount that can be wagered on each cell 30, twenty-five cents as illustrated. The title of the game may also be displayed on the video display.

[0040] As described above in connection with Figure 1, the assembly also provides means for accepting a wager from a player, like the insertion portion 8 that includes a coin insertion portion and a bill insertion portion, that is, a coin acceptor, bill acceptor, electronic fund transfer card input, or other means commonly known and utilized in the field.

[0041] As alluded to above and as shown in Figure 8, the CPU 11 or game control 34 has a secondary event mode or sub-programmer 54 for randomly selecting one of a plurality of positions and sending an object to one of the positions in response to a secondary event trigger in the primary mode. More specifically, in the preferred embodiment, the positions comprise representations of three planets 56 and the object comprises a space ship 58, as shown in Figure 5. In response to a secondary event trigger 28 on a selected cell 30, the display 20 shows the spaceship 58 traveling to one of the randomly selected planets 56. The game control's 34 secondary event mode 54 and random generator 17 select a plurality of bonus values from a pool of bonus values, and randomly assign each selected bonus value to an item to be displayed on the planet. Thereafter, an item selector 60 is included defining the selector 36 for allowing the player to select, via the touchscreen feature of the video display 20, a predetermined number of items from those items presented. The game control 34 secondary event mode 54 presents an evaluation station and includes a transfer device for moving the items through space to the evaluation station.

[0042] As shown in Figure 6, the evaluation station comprises a pawnshop 62. The transfer device comprises the loading of the items onto the spaceship 58 and the spaceship 58 delivering the items to the pawnshop 62. The interior of the pawnshop 62 is shown with the pawnshop operator at the counter and the person, Bill, waiting for the evaluation of the items selected and brought from the

planets 56. The event programmer 54 includes an award designator 64 for displaying various animation sequences in response to the bonus values assigned to the items selected and brought to the pawnshop evaluation station, and awarding credits to the player accordingly.

5 [0043] As illustrated in the flow diagram of Figure 11, the invention also includes the method comprising the actions of executing the game as well as a readable recording medium recording a control program for playing a video slot machine game on a display.

10 [0044] The method comprises the actions of a player selecting a number of the cells 30, the player placing a wager on the selected number of the cells 30, randomly generating and displaying in each cell 30 a symbol 18, 19 and 21-29 independently of the random generation of the symbols in each and any of the other cells 30, and awarding a prize or triggering a secondary event in response to a predetermined winning combination of symbols 18, 19 and 21-29 or secondary event
15 trigger being displayed in the cells selected by the player. The method includes the player selecting the number of cells 30 to be evaluated by the game control 34 to detect the presence of a winning combination 17. An important additional action comprises the changing the probabilistic distribution of the symbols 18, 19 and 21-29 in the cells 30 in response to the number of cells 30 selected by the player.

20 [0045] Many modifications and variations of the present invention are possible in light of the above teachings. The invention may be practiced otherwise than as specifically described within the scope of the appended claims